Results: OP events occurred in 10 pts (4%); no pts with ISC had OP events, reflecting RVS in 9 pts. Late CE occurred in 30 pts, more commonly with ISC. An Eagle score of 0 was present in 39 pts, of whom 1 had OP event and 4 (10%) had late events. ISC was a predictor of late events after adjusting for Eagle score, gender and LV dysfunction. Scar was not associated with CE.

	Early events	Late events	Combined
Ischemic	0/39 (0%)	12/39 (42%)	12/39 (31%)
Non-ischemic	10/157 (6%)	18/186 (10%)	28/157 (18%)
P	0.23	0.0001	0.0003

Conclusions: ISC on DbE is more predictive of late than OP events. Eagle score may be less effective for prediction of late than OP-CE, so DbE may be useful for prediction of late CE in pts at low clinical risk for OP events.

1152-120 Dipyridamole SPECT, Dobutamine Echo, and Exercise Tests Have Similar Efficacy for Cardiac Risk Stratification – Experience in 494 Patients Undergoing Aortic Surgery

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Comparisons of dipyridamole SPECT (Dpy) and dobutamine echo (DbE) for cardiac risk stratification (CRS) are difficult due to differences in patient mix and referral patterns between centers. We compared CRS in pts undergoing aortic aneurysm repair at a single center where the choice of test is determined by availability and physician preference.

Methods: Pts underwent DbE, Dpy, exercise test (ExT) or angiography (angio) according to clinical judgment. Perioperative events (OP) were defined as cardiac death, infarction or presumed ischemic events.

Results: Of 494 pts, 89% had at least one Eagle factor, 347 (70%) had a stress test and 116 (23%) underwent angio without stress. OP events occurred in 24 (4.9%). After exclusion of revascularization (RVS), OP events occurred with similar frequency in pts undergoing Dpy, DbE, and ExT (p = NS). Pts having angio without stress were more likely to undergo preoperative RVS (28% vs 3%, p < 0.01). Five events occurred in 47 pts (11%) with abnormal stress tests and positive angio who proceeded without RVS, compared with no events in 8 pts with abnormal stress tests and RVS or normal angios.

	N	Positive test	Precp RVS	OP Event
Dpy	85	22 (26%)	6	3 (4%)
DbE	110	8 (7%)	2	4 (4%)
ExT	152	33 (22%)	3	9 (6%)
Angio	116	61 (53%)	33	7 (8%)

Conclusion: CE occur in < 5% pts at AAA surgery. Outcomes following CRS with Dpy, DbE and ExT appear comparable, despite fewer positive DbE.

1152-121 Diagnostic and Prognostic Features of Multi Vessel Coronary Artery Disease by Dobutamine Stress Echocardiography

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Four hundred and twenty five patients (pts) with coronary angiograms within 3 months of Dobutamine stress echocardiography (DSE) were selected form 2067 consecutive DSE studies. Sixty-nine pts with previous MI and 120 pts with revascularization were excluded. CAD was significant if 1 or more vessels had ≥70% stenosis. One hundred and eight pts without significant CAD (group I), 47 pts with 1 vessel (group II), and 81 pts with multi vessel disease (group III), were followed for cardiac events including unstable angina, MI, cardiac arrhythmia, CHF, revascularization and death for 16.5 ± 11.2 months.

	I	II	III	p
Resting LVEF (%)	52.7 ± 10.8	51.1 ± 11.0	46.9 ± 12	0.05
Diagnostic				
Sensitivity (%)	-	72.3	86.4	
Specificity (%)	70.4	-	-	
Follow-up				
Event rate (%)	12	29.8	35.8	0.01
(+) Predictive value				
DSE	6.25	29.4	38.6	0.01
Multi WMA*	7.14	32	42.4	0.01

*Multisegment LV wall motion abnormality.

Patients with multi-vessel CAD have a significantly higher incidence of +ve DSE with multi-segment LV WMA and have increased event rate during follow-up.

1152-122 Dobutamine Stress Echocardiography in Elderly Patients; A Comparison Between Patients Over and Under the Age of 70 Years

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Out of 2067 consecutively performed dobutamine stress echocardiograms (DSE), 144 patients (pts) were excluded due to limited studies. Two hundred and thirty four pts, age ≥70 yrs (mean age 75.4 ± 4.7) with 109 males (46.6%) were compared to 1689 pts with age < 70 yrs (mean age 52.7 ± 9.9) with 768 (45.5%) males. The peak dobutamine and atropine doses were lower in age ≥70 group 32.1 ± 8.7 mcg/kg/min and 0.41 ± 0.26 mg, compared to age < 70, 34.9 ± 7.5 mcg/kg/min, 0.51 ± 0.27 mg (p < 0.05), and the % of pts achieving target heart rate was higher in age ≥70 group, 89.3 ± 11.2 compared to age < 70 group, 81.9 ± 11.9 (p < 0.0001). The changes in double product from baseline to peak DSE were lower in ≥70, 39.5 ± 17.8% compared to < 70, 45.2 ± 16.7% (p < 0.0001). All pts were followed for cardiac events including unstable angina, MI, CHF, arrhythmias, revascularization and death. In pts with positive DSE for ischemia, 29 of 72 (40.3%) in ≥70 group had events compared to 109 of 405 (26.9%) in < 70 group (p < 0.05) over a follow-up period of 14.9 ± 10.2 months. After adjusting for coronary risk factors, LV dysfunction, coronary artery disease, previous revascularization, and MI, a positive DSE in ≥70 group had a 1.6 fold higher risk of future cardiac events when compared to < 70 group (p < 0.01). The risk ratios of a negative DSE were similar in the two groups. The data indicate a higher risk of cardiac events in patients with a positive DSE for ischemia over the age of 70 years.

1152-123 Increased Adverse Events in Patients on Calcium Channel Blocker Therapy and Positive Dobutamine Stress Echocardiograms

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One thousand one hundred and eight patients either on calcium channel blockers or on no cardiac medications during dobutamine stress echocardiography (DSE) were selected from 2067 consecutive DSE studies; 563 pts, mean age 55.5 ± 11.8 yrs, 270 (48%) males on calcium channel blockers (Group I) and 545 pts, mean age 53.8 ± 12.6 yrs, 239 (43.9%) males, without cardiac medications (Group II). None of the Group I pts were on β-blockers. Dobutamine dose, use of atropine, resting heart rate and peak double product were not different between groups. The sensitivity and specificity for DSE in detecting ischemia in 203 pts with angiograms were 81.2% and 73.2% in group I and 78.3% and 80.6% in group II. All pts were followed for cardiac events including unstable angina, MI, CHF, arrhythmias, revascularization and death. Follow-up periods were 16.7 ± 10.8 and 15.4 ± 10.7 months for group I and II respectively. Seventy-one of 563 pts (12.6%) in group I had cardiac events compared to 40 of 545 pts (7.3%) in group II (p < 0.0005). Following adjustment for coronary risk factors, LV dysfunction, coronary artery disease, MI and revascularization by Cox multivariate regression analysis, the risk ratio of pts with positive DSE for future events in group I was 3.99 (p = 0.0001) compared to 2.13 (p < 0.05) in group II, 1.86 fold higher (p = 0.08). The data indicate that DSE is equally sensitive in detecting ischemia, however, a positive DSE in pts on concomitant calcium channel blocker therapy was associated with a higher risk of future cardiac events.

1152-124 Prognostic Value of Dobutamine Echocardiography Is Compromised in Patients With Atrial Fibrillation Despite Adequate Stress

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Interpretation of dobutamine echo (DbE) in pts with atrial fibrillation (AF) may be difficult because of comparing cycles of varying RR interval. We sought to document hemodynamic profile, efficacy and prognostic value of DbE in AF.

Methods: Of 3011 consecutive pts undergoing DbE over 5 years, 115 had AF at rest. A standard Db protocol was used (5–40 mcg/kg/min in 3 min increments with atropine up to 2 mg). Endpoints were target heart rate (HR) 85% predicted (PHR), maximum dose or dose limiting side effects.

Results: Pts with AF were older (73 ± 8 vs 65 ± 12 y, p < 0.0001), more likely to be men (68% vs. 56%, p < 0.01), taking digoxin (64% vs 13%, p < 0.0001) and diuretics (51% vs 32%, p < 0.0001). AF had higher %PHR at rest (55 ± 10 vs 48 ± 9, p < 0.0001), and attained higher peak %PHR (95 ± 14 vs 86 ± 11, p < 0.0001) in a shorter stress time (13 ± 3 vs 15 ± 3 min, p < 0.0001), with less atropine use (15% vs 32%, p < 0.0001) and lower peak Db dose (20 ± 9 vs 26 ± 12 mg, p < 0.0001). Target HR was achieved in 86% pts with and without AF, with comparable incidence of ectopics and dose limiting side effects. Ischemia (ISC; new or worse wall motion) was detected in 13% AF vs 18% SR (p = NS). Of 115 pts with AF, 108 were available for f/u for ~6 m (mean 20 months): 28 pts died, 13 of cardiac causes. Of these 13, only 2